

CLAIMS

1. A computer readable medium providing program code segments for creating a Virtual Stage on a client device, wherein the Virtual Stage provides a platform by which at least one segment of Enhanced Content can be presented to a client via a presentation device, comprising:
- 5 a first program code segment providing an abstraction of a Receiver Object, wherein the Receiver Object provides at least one instruction which configures the client device to receive at least one segment of Enhanced Content from an Enhanced Content provider; and
- 10 a second program code segment providing an abstraction of a Show, wherein the Show Object provides at least one instruction which configures the client device to present the at least one segment of Enhanced Content;
- whereupon establishment of a communications link between the client device and the Enhanced Content provider, the Receiver Object and Show Object configured client device receives the at least one segment of Enhanced Content and presents the
- 15 received Enhanced Content segments via a presentation device.
2. The computer readable medium of claim 1, wherein the Virtual Stage further comprises a Virtual Classroom.
3. The computer readable medium of claim 1, wherein the Virtual Stage further comprises a Virtual Chat session.
4. The computer readable medium of claim 1, wherein the client device comprises at least one of a personal computer, a personal data assistant, a Web tablet, a wireless communications device, a computer workstation, a gaming console, a set-top box, an Internet equipped television, a digital television, a Browser, a cable box,
- 5 and a device capable of presenting Enhanced Content to a client.
5. The computer readable medium of claim 1, wherein the presentation device further comprises at least of a television, a video display system, an audio system, a virtual reality system, a gaming system, slow motion video presentation system, a still-frame presentation system, a motion picture presentation system, and a home
- 5 theater system.

6. The computer readable medium of claim 1, wherein at least one of the first program code segment and the second program code segment provides at least one instruction to configure the client device to receive or present at least one segment of Enhanced Content received in at least one of a hyper-text mark-up language file
- 5 format, a Flash file format, a dhtml file format, a Java file format, an xml file format, a text file format, a graphic file format, a video file format, and a sound file format.
7. The computer readable medium of claim 1, further comprising:
a third program code segment providing an abstraction of a Subscriber, wherein the Subscriber Object provides at least one instruction which configures the client device to subscribe to at least one subscription.
8. The computer readable medium of claim 7, wherein the at least one instruction configures the client device to subscribe to at least one chat message service.
9. The computer readable medium of claim 1, wherein the computer readable medium is located with at least one of a network server, the client device, the Enhanced Content provider, and a provider of a temporal signal to which the Enhanced Content relates.
10. The computer readable medium of claim 1, further comprising:
a fourth program code segment providing an abstraction of a Control Area, wherein the abstracted Control Area includes at least one Object utilized by the client device to establish interfaces between the client device and at least one Enhanced
- 5 Content provider.
11. The computer readable medium of claim 1, further comprising:
a fifth program code segment providing a Stage Manager, wherein the Stage Manager controls the creation and operation of the Virtual Stage.
12. The computer readable medium of claim 11, wherein the Stage Manager further comprises at least one instruction for creating a Queue and a Register; wherein the Queue includes a listing of at least one task utilized to configure the client device to present the at least one segment of Enhanced Content and the Register includes an
- 5 identification of at least one Object and how each of the at least one Object can be contacted.

13. The computer readable medium of claim 12, wherein at least one of the abstracted Show Object and the abstracted Receiver Object are identified as an Object on the Register.

14. The computer readable medium of claim 12, wherein the Register further comprises a table having an Object column and a key column, wherein the Object column identifies a particular Object, and the key column identifies where the particular Object is located.

15. The computer readable medium of claim 14, wherein the Object is located in a memory device that is co-located with at least one of a network server, an Enhanced Content provider, the client device and a provider of a Temporal Signal related to the Enhanced Content.

16. The computer readable medium of claim 12, wherein at least one Object in the Register has a co-dependency with at least one additional Object in the Register.

17. The computer readable medium of claim 16, whereupon adding an Object to the Register, the Register announces the Object to the Queue, and whereupon receiving the announcement, the Queue surveys any listed tasks and directs the Stage Manager to perform those tasks which are awaiting the announcement prior to being
5 executed.

18. The computer readable medium of claim 17, wherein the Stage Manager further comprises an instruction which provides that an Object which is announced last unannounces any other Object competing for a same resource on the client device.

19. A computer readable medium providing program code segments for creating a Virtual Stage on a client device, wherein the Virtual Stage provides a platform by which at least one segment of Enhanced Content can be presented to a client via a presentation device, comprising:

5 a first program code segment providing an abstraction of a Receiver Object, wherein the Receiver Object provides at least one instruction which configures the client device to receive at least one segment of Enhanced Content from an Enhanced Content provider;

a second program code segment providing an abstraction of a Show, wherein

- 10 the Show Object provides at least one instruction which configures the client device
to present the at least one segment of Enhanced Content; and
- a third program code segment providing an abstraction of a Subscriber,
wherein the Subscriber Object provides at least one instruction which configures the
client device to subscribe to receive the at least one segment of Enhanced Content
15 from the Enhanced Content provider;
- whereupon establishment of a communications link between the client device
and the Enhanced Content provider, the Receiver Object and Show Object configured
client device receives the at least one segment of Enhanced Content, presents the
received Enhanced Content segments in accordance with the configuration
20 instructions specified by the Show, and subscribes to at least one of a subscription and
a chat room in accordance with the instructions specified by the Subscriber.
20. The computer readable medium of claim 19, wherein the client device further
comprises at least one of a personal computer, a personal data assistant, a Web tablet,
a wireless communications device, a computer workstation, a gaming console, a set-
top box, an Internet equipped television, a digital television, a Browser, a cable box,
5 and a device capable of presenting Enhanced Content to a client.
21. The computer readable medium of claim 19, wherein the presentation device
further comprises at least of a television, a video display system, an audio system, a
virtual reality system, a gaming system, slow motion video presentation system, a
still-frame presentation system, a motion picture presentation system, and a home
5 theater system.
22. The computer readable medium of claim 19, wherein at least one of the first
program code segment and the second program code segment provides at least one
instruction to configure the client device to receive or present at least one segment of
Enhanced Content received in at least one of a hyper-text mark-up language file
5 format, a Flash file format, a dhtml file format, a Java file format, an xml file format,
a text file format, a graphic file format, a video file format, and a sound file format.
23. The computer readable medium of claim 19, wherein the Subscriber Object
further provides at least one instruction which configures the client device to
subscribe to at least one chat message service.

24. The computer readable medium of claim 19, further comprising:
a fourth program code segment providing an abstraction of a Control Area,
wherein the abstracted Control Area includes at least one Object utilized by the client
device to establish interfaces between the Show Object and the at least one Enhanced
Content provider.

25. The computer readable medium of claim 19, wherein the computer readable
medium is located with at least one of a network server, the client device, the
Enhanced Content provider, and a provider of a Temporal Signal to which the
Enhanced Content relates.

26. A computer readable medium providing program code segments for creating a
Virtual Stage on a client device, wherein the Virtual Stage provides a platform by
which at least one segment of Enhanced Content can be presented to a client via a
presentation device, comprising:

a first program code segment providing an abstraction of a Receiver Object,
wherein the Receiver Object provides at least one instruction which configures the
client device to receive at least one segment of Enhanced Content from an Enhanced
Content provider;

a second program code segment providing an abstraction of a Show, wherein
the Show Object provides at least one instruction which configures the client device
to present the at least one segment of Enhanced Content;

a third program code segment providing an abstraction of a Subscriber,
wherein the Subscriber Object provides at least one instruction which configures the
client device to subscribe to at least one subscription service;

a fourth program code segment providing an abstraction of a Control Area,
wherein the abstracted Control Area contains those elements utilized by the client
device to establish interfaces between the client device and at least one Enhanced
Content provider; and

a fifth program code segment providing a Stage Manager, wherein the Stage
Manager provides at least one instruction which configures the client device to create
and operate the Virtual Stage;

whereupon establishment of a communications link between the client device
and the Enhanced Content provider, the Receiver Object, Show Object and Subscriber
Object configured client device receives the at least one segment of Enhanced

- 25 Content, presents the received Enhanced Content segments in accordance with the configuration instructions specified by the Show, and subscribes to at least one of a subscription and a chat room in accordance with the instructions specified by the Subscriber.
27. The computer readable medium of claim 26, wherein the Stage Manager provides at least one instruction which controls an order in which an abstraction is created on the client device.
28. The computer readable medium of claim 27, wherein the Stage Manager further comprises at least one instruction for creating a Queue and a Register; wherein the Queue includes a listing of at least one task utilized to configure the client device to present the at least one segment of Enhanced Content and the Register includes an
5 identification of at least one Object and where the at least one Object is located.
29. The computer readable medium of claim 28, whereupon adding an Object to the Register, the Register announces the Object to the Queue, and whereupon receiving the announcement, the Queue surveys any listed tasks and directs the Stage Manager to perform those tasks which are awaiting the announcement prior to being
5 executed.
30. The computer readable medium of claim 29, wherein the Stage Manager provides at least one instruction which controls an order in which the abstraction of the Show, the Control Area, and the Receiver Object are created on the client device.
31. A system for presenting Enhanced Content related to a Temporal Signal to a client via a client device on a Virtual Stage comprising:
- a receiver for receiving a Temporal Signal, wherein the Temporal Signal includes at least one URI embedded into the Temporal Signal, the URI providing an
5 address for a Site providing Enhanced Content related to the Temporal Signal;
 - a decoder, connected to the receiver, for extracting the URI from the Temporal Signal and outputting the URI;
 - a client device, connected to the decoder, the client device further comprising:
 - a Browser; and
 - 10 a storage device;

whereupon receipt of the URI from the decoder, the Browser establishes a connection with the Site and receives from the site a program code which configures the client device as a Virtual Stage by initializing and saving, in the storage device, cross-dependent abstractions of a Show Object and a Receiver Object, wherein the

15 Receiver Object and the Show Object collectively enable the Browser to receive and present the Enhanced Content from any source and via any communications link utilized to communicate the Enhanced Content to the client device.

32. The system of claim 31, wherein the client device further comprises at least one of a personal computer, a personal data assistant, a Web tablet, a wireless communications device, a computer workstation, a gaming console, a set-top box, an Internet equipped television, a digital television, a Browser, a cable box, and a device

5 capable of presenting Enhanced Content to a client.

33. The system of claim 31, wherein the client device further comprises a presentation device, the presentation device further comprising at least of a television, a video display system, an audio system, a virtual reality system, a gaming system, slow motion video presentation system, a still-frame presentation system, a motion

5 picture presentation system, and a home theater system.

34. The system of claim 31, wherein the client device includes at least one instruction to configure the Browser to present at least one segment of Enhanced Content received in at least one of a hyper-text mark-up language file format, a Flash file format, a dhtml file format, a Java file format, an xml file format, a text file

5 format, a graphic file format, a video file format, and a sound file format.

35. A Virtual Stage provided in at least one of a computer readable medium and a propagated signal, for enabling a client device to receive and present at least one segment of Enhanced Content related to a Temporal Signal irrespective of a communications medium utilized to transmit the at least one segment of Enhanced

5 Content from an Enhanced Content provider to the client device, comprising:

a Show Object providing an abstraction of a presentation area in which the Enhanced Content is presented; and

a Receiver Object providing an abstraction of a device capable of receiving the

Enhanced Content and providing the received Enhanced Content to the Show Object
10 for presentation to a client via the client device.

36. A memory for storing instructions utilized to configure a presentation space on
a client device as a Virtual Stage upon which at least one segment of Enhanced
Content may be presented, comprising:

- 5 a first data structure stored in a memory, the first data structure including
instructions for controlling a presentation space on a client device; and
- a second data structure stored in a memory, the second data structure including
instructions for configuring the presentation space as a Virtual Stage, further
comprising:
 - 10 an abstracted Stage Manager data Object, wherein the abstracted Stage
Manager controls the creation and operation of the Virtual Stage;
 - a plurality of abstracted Objects, each of said abstracted Objects being
utilized to create the Virtual Stage;
 - an abstracted Queue, in communication with the abstracted Stage
15 Manager, wherein the abstracted Queue comprises a list of tasks to be accomplished
and Objects to be abstracted, under the direction of the Stage Manager, in creating and
operating the Virtual Stage;
 - an abstracted Register, in communication with the abstracted Stage
Manager and the abstracted Queue, wherein the abstracted Register includes an
20 identification of at least one of the plurality of abstracted Objects and where each
abstracted Object is located.

37. The memory of claim 36, wherein the first data structure includes instructions
for configuring the presentation space as a Browser.

38. The memory of claim 36, wherein the memory is co-located with at least one
of the client device, a network server, a provider of the Enhanced Content, and a
provider of a Temporal Signal to which the Enhanced Content relates.

39. The memory of claim 36, wherein at least one of the plurality of abstracted
Objects includes an abstracted Receiver Object, wherein the abstracted Receiver
Object provides at least one instruction which configures the Browser to receive at
least one segment of Enhanced Content.

40. The memory of claim 36, wherein at least one of the plurality of abstracted Objects includes an abstracted Show, wherein the abstracted Show Object provides at least one instruction which configures the Browser to present at least one segment of Enhanced Content.

41. The memory of claim 36, wherein at least one of the plurality of abstracted Objects includes an abstracted Subscriber, wherein the abstracted Subscriber Object provides at least one instruction which configures the Browser to subscribe to at least one subscription service.

42. The memory of claim 41, wherein the at least one subscription service include a chat message service.

43. A process for creating a Virtual Stage on a client device comprising:
abstracting a Show Object, wherein the Show Object provides an abstraction of a platform upon which at least one segment of Enhanced Content provided by a Site may be presented; and

5 abstracting at least one Receiver Object, in communication with the Show Object, wherein the at least one Receiver Object provides an abstraction of a receiver for receiving from the Site at least one segment of Enhanced Content and providing the received Enhanced Content to the Show Object for presentation on the client device.

44. The process of claim 43, further comprising:
abstracting at least one Subscriber Object, in communication with the Receiver Object, wherein the at least one Subscriber Object provides at least one instruction with configures the client device to subscribe to at least one subscription.

45. The process of claim 44, wherein the at least one subscription includes a subscription to at least one chat message service.

46. A process for creating a Virtual Stage on a client device comprising:
identifying a main frame in the Register, wherein the main frame provides an abstracted framework upon which at least one segment of Enhanced Content may be presented;

5 identifying a control frame in the Register, wherein the control frame provides an abstracted framework for at least one Object used to control a presentation of Enhanced Content;

abstracting a Show Object, hosted by the main frame, wherein the Show
Object provides an abstraction of a platform, upon the abstracted main frame, on
10 which at least one segment of Enhanced Content provided by a Site may be presented;
and

abstracting at least one Receiver Object, hosted by the control frame and in
communication with the Show Object, wherein the at least one Receiver Object
provides an abstraction of a receiver for receiving from the Site at least one segment
15 of Enhanced Content and providing the received Enhanced Content to the Show
Object.

47. The process of claim 46, further comprising:

establishing a Queue in a computer readable medium, wherein the Queue
provides an indication of a condition and an event that is to be performed when the
condition is satisfied;

5 establishing a Register in a computer readable medium, wherein the Register
provides an indication of at least one Object and where each of the at least one Object
is located.

48. A process for identifying to an online information provider a type of Enhanced
Content to present upon a Virtual Stage comprising:

establishing a communications link between a client device, upon which a
Virtual Stage is to present Enhanced Content, and an online information provider;

5 and

communicating a Skin from the client device to the online information
provider;

wherein the Skin communicates information indicative of which Enhanced Content
the Virtual Stage is to present and an identity of the client device upon which the
10 Virtual Stage is to be established such that the Enhanced Content is compatible with
and may be presented on the Virtual Stage hosted by the client device.

49. The process of claim 48, wherein the communications link between the client
device and the online information provider is established over at least one of an
Internet connection, a wireless link, an intranet connection, a satellite link, a cable
link, a dial-up network, a regional network, a broadcast network, a multi-cast
5 network, a simulcast network, and a wired link.

50. The process of claim 49, wherein the client device further comprises at least one of a personal computer, a personal data assistant, a Web tablet, a wireless communications device, a computer workstation, a gaming console, a set-top box, an Internet equipped television, a digital television, a Browser, a cable box, and a device capable of presenting Enhanced Content to a client.

51. An apparatus for executing an application program and being in communication with a database used by the application program to render a Virtual Stage in order to present at least one segment of Enhanced Content on the Virtual Stage comprising:

a processor for processing an application program which configures a presentation space, on a presentation device connected to the processor, for presenting at least one segment of Enhanced Content; and

a memory for storing at least one instruction utilized by the application program to configure the presentation space as a Virtual Stage and further comprising:

an abstracted Stage Manager, wherein the abstracted Stage Manager controls the creation and operation of the Virtual Stage;

a plurality of abstracted Objects, each of said abstracted Objects being utilized to create the Virtual Stage;

an abstracted Queue, in communication with the abstracted Stage Manager, wherein the abstracted Queue comprises a list of tasks to be accomplished and Objects to be abstracted, under the direction of the Stage Manager, in creating and operating the Virtual Stage;

an abstracted Register, in communication with the abstracted Stage Manager and the abstracted Queue, wherein the abstracted Register includes an identification of at least one Object and where the abstracted Object is located;

an abstracted Receiver Object providing at least one instruction which configures the presentation space to receive at least one segment of Enhanced Content;

an abstracted Show Object providing at least one instruction which configures the presentation space to present at least one segment of Enhanced Content.

52. The apparatus of claim 51, wherein the presentation space is controlled by a Browser.

53. The apparatus of claim 51, wherein the memory is co-located with the processor.

54. The apparatus of claim 51, wherein the memory is remotely located with respect to the processor.

55. A signal embodied in a transmission medium for rendering a client device as a Virtual Stage upon which at least one segment of Enhanced Content may be presented to a client, comprising:

- 5 a first program code segment providing an abstraction of a Receiver Object, wherein the Receiver Object provides at least one instruction which configures the client device to receive at least one segment of Enhanced Content from an Enhanced Content provider;
- 10 a second program code segment providing an abstraction of a Show, wherein the Show Object provides at least one instruction which configures the client device to present the at least one segment of Enhanced Content;
- a third program code segment providing an abstraction of a Subscriber, wherein the Subscriber Object provides at least one instruction which configures the client device to subscribe to at least one subscription service;
- 15 a fourth program code segment providing an abstraction of a Control Area, wherein the abstracted Control Area contains those elements utilized by the client device to establish interfaces between the client device and at least one Enhanced Content provider; and
- 20 a fifth program code segment providing an abstracted Stage Manager, wherein the abstracted Stage Manager provides at least one instruction which configures the client device to create and operate the Virtual Stage;
- 25 whereupon establishment of a communications link between the client device and the Enhanced Content provider, the Receiver Object, Show Object and Subscriber Object configured client device receives the at least one segment of Enhanced Content, presents the received Enhanced Content segments in accordance with the configuration instructions specified by the Show, and subscribes to at least one of a subscription and a chat room in accordance with the instructions specified by the Subscriber.